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# PREMIUMS

OFFERED BY THE

# S O C I E T Y

FOR THE ENCOURAGEMENT OF

ARTS, MANUFACTURES,

AND

COMMERCE,

IN

THE YEAR M.DCC.XC.

#### PUBLIC.

Adelphi-Buildings, April 14, 1790.

HE chief objects of the attention of the Society for the Encouragement of Arts, Manufactures and Commerce, in the application of their Rewards, are Ingenuity in the feveral branches of the POLITE and LIBERAL ARTS, useful Discoveries and Improvements in AGRICULTURE, MANU-FACTURES, MECHANICKS, and CHE-MISTRY, or the laying open any fuch to the Public; and in general, all fuch useful Inventions, Discoveries, or Improvements, (though not mentioned in the Book of Premiums) as may appear to have a tendency to the advantage of Trade and Commerce. The Society therefore, in pursuance of their plan, propose to bestow the following Premiums.

Premiums

# Premiums for Planting and Husbandry.

- 1. ACORNS. For having set, between the first of October, 1789, and the first of April, 1790, the greatest quantity of strong land, not less than ten acres, with Acorns, and seeds or cuttings of other trees, and for the effectually fencing and preserving the same, in order to raise timber and underwood; the Gold Medal.
- 2. For the second greatest quantity of land, not less than five acres, sown or set agreeably to the above conditions, the SIL-VER MEDAL.

CERTIFICATES of fetting or fowing agreeably to the above conditions, and that there are not fewer than three hundred young Oaks on each acre, to be delivered to the Society on or before the first Tuesday in November, 1790.

3, 4. The fame premiums are extended one year further.

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CERTIFICATES to be produced on or before the first Tuesday in November, 1791.

5, 6. The same premiums are extended one year further.

CERTIFICATES to be produced on or before the first Tuesday in November, 1792.

7, 8. The fame premiums are extended one year further.

CERTIFICATES to be produced on or before the first Tuesday in November, 1793.

- 9. RAISING OAKS. To the person who shall have raised the greatest number of Oaks, not sewer than five thousand, either from young plants, or from acorns, in woods, parks, or forests, that have long been under timber, and effectually senced and preserved the same, in order to secure a succession of oak timber in this kingdom; the Gold Medal.
- 10. For the next greatest quantity, not fewer than three thousand, the SILVER MEDAL.

CERTIFICATES that there were on the land, upon the first of November, 1790, at least the number of young Oak-trees required, in a thriving condition, effectually fenced and preserved, with an account of the methods pursued in making and managing the plantation, to be produced to the Society on or before the first Tuesday in January, 1791.

11, 12. The fame premiums are extended one year further.

CERTIFICATES to be produced on or before the first Tuesday in January, 1792.

13, 14. The same premiums are extended one year further.

CERTIFICATES to be produced on or before the first Tuesday in January, 1793.

15. OBSERVATIONS ON OAK. To the person who shall furnish the best observations and experiments on the various obstructions to the growth of Oak-trees, with apposite remedies for the same; and

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shall also ascertain those appearances on Oaktrees, which may serve to show them to have arrived at the proper period, and to be in a fit state to be felled, for the purposes of ship-building, and other uses; the Gold Medal, or Twenty Guineas.

The accounts to be produced to the Society on or before the third Tuesday in December, 1790.

- 16. The same premium is extended one year further. The accounts to be produced on or before the third Tuesday in December, 1791.
- 17. CHESNUTS. For having fown or fet, between the first of October, 1789, and the first of April, 1790, the greatest quantity of dry loamy land, not less than fix acres, with a mixture of Spanish Chesnuts, and the seeds or cuttings of other trees adapted to such soil, and for effectually fencing and preserving the same, in order to raise timber; the Gold Medal.

18. For the second greatest quantity, not less than four acres, the SILVER MEDAL.

CERTIFICATES of fowing or fetting agreeably to the above conditions, and that there are not fewer than three hundred Chesnut plants, in a thriving state, on each acre, to be delivered to the Society on or before the first Tuesday in November, 1790.

19, 20. The same premiums are extended one year further.

CERTIFICATES to be delivered on or before the first Tuesday in November, 1791.

21, 22. The same premiums are extended one year further.

CERTIFICATES to be delivered on or before the first Tuesday in November, 1792.

23, 24. The fame premiums are extended one year further.

CERTIFICATES to be delivered on or before the first Tuesday in November, 1793.

25. ELM. For having planted the greatest number of the English Elm, not less

less than eight thousand, between the twenty-fourth of June, 1789, and the twenty-fourth of June, 1790, and for the having effectually fenced and preserved the fame, in order to raise timber; the Gold MEDAL.

- 26. For the fecond greatest number, not less than five thousand, the SILVER MEDAL.
- 27. For the third greatest number, not less than four thousand, the SILVER ME-DAL.

CERTIFICATES of the having planted agreeably to the above conditions, and specifying the distance of the trees, must be delivered to the Society on or before the first Tuesday in November, 1790.

28, 29, 30. The fame premiums are extended one year further.

CERTIFICATES of the having planted agreeably to the above conditions, that the plants were in a healthy and thriving state two years at least after making the plantation, and specifying the distance of the S 3

plants, to be delivered to the Society on or before the first Tuesday in November, 1792.

31, 32, 33. The fame premiums are extended one year further.

CERTIFICATES to be produced on or before the first Tuesday in November, 1793.

34, 35, 36. The fame premiums are extended one year further.

CERTIFICATES to be produced on or before the first Tuesday in November, 1794.

- 37. LARCH. For having planted out, between the twenty-fourth of June, 1789, and the twenty-fourth of June, 1790, in a mixed plantation of forest-trees, the greatest number of Larch-trees, not fewer than five thousand, and for having effectually fenced and preserved the same, in order to raise timber; the Gold Medal.
- 38. For the next greatest number, not fewer than three thousand, the SILVER MEDAL.

CERTIFICATES of the number of plants, that they were in a healthy and thriving flate state two years at least after they were planted out, with a general account of the methods used in making the plantation, to be delivered to the Society on or before the last Tuesday in December, 1793.

39, 40. The same premiums are extended one year further.

CERTIFICATES to be produced on or before the last Tuesday in December, 1794.

41, 42. The same premiums are extended one year further.

CERTIFICATES to be produced on or before the last Tuesday in December, 1795.

- 43. SILVER FIR. For having planted out, between the twenty-fourth of June, 1789, and the twenty-fourth of June, 1790, in a mixed plantation of forest-trees, the greatest number of Silver Firs, not fewer than two thousand; and for having effectually fenced and preserved the same, in order to raise timber; the Gold Medal.
- fewer than one thousand, the SILVER ME-DAL.

CERTIFICATES of the number of plants, that they were in a healthy and thriving state two years at least after they were planted out, with a general account of the methods used in making the plantation, to be delivered to the Society on or before the last Tuesday in December, 1793.

45, 46. The fame premiums are extended one year further.

CERTIFICATES to be produced on or before the last Tuesday in December, 1794.

47, 48. The same premiums are extended one year further.

CERTIFICATES to be produced on or before the last Tuesday in December, 1795.

49. HUNTINGDON WILLOW. For the greatest number of acres, not less than three, planted in the year 1789, with Huntingdon Willows; the number of cuttings to be at least one thousand on each acre, properly fenced and secured; the GOLD MEDAL.

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CERTIFICATES to be produced on or before the last Tuesday in December, 1790.

50. The fame premium is extended one year further.

CERTIFICATES to be produced on or before the last Tuesday in December, 1791.

51. UPLAND OR RED WILLOW. For the greatest number of acres, not less than three, planted before the end of April, 1789, with Upland or Red Willow, properly fenced and secured, the number of plants on each acre to be at least twelve hundred; the GOLD MEDAL.

CERTIFICATES of the number of plants, and that they were in a thriving state at the time of signing such certificates, to be produced to the Society on or before the last Tuesday in April, 1791.

52. The same premium is extended one year further.

CERTIFICATES to be produced on or before the last Tuesday in April, 1792.

It is well known that this species of willow thrives well on dry sandy land.

53. ALDER. For having planted, in the year 1789, the greatest number of Alders, not less than three thousand, on an estate the property of one person; the Gold Medal.

CERTIFICATES of the number of the plants, and that they were in a thriving state two years at least after being planted, to be delivered to the Society on or before the last Tuesday in December, 1792.

54. The fame premium is extended one year further.

CERTIFICATES to be delivered on or before the last Tuesday in December, 1793.

55. The fame premium is extended one year further.

CERTIFICATES to be delivered on or before the last Tuesday in December, 1794.

56. ASH. For having fown or fet, in the year 1788, the greatest quantity of land,

land, not less than fix acres, with Ash for timber, intermixed with the seeds, cuttings, or plants of such other trees as are adapted to the soil; the Gold Medal.

57. For the next greatest quantity, not less than four acres, the SILVER MEDAL.

CERTIFICATES of the fowing or fetting agreeably to the above conditions, and that there are not fewer than one hundred Ash plants on each acre, to be delivered to the Society on or before the last Tuesday in December, 1790.

- 58. ASH. For having fown or fet, in the year 1790, the greatest quantity of land, not less than six acres, with Ash for timber, intermixed with seeds, cuttings, or plants of such other trees as are adapted to the soil; the Gold Medal.
- 59. For the next greatest quantity, not less than four acres, the SILVER MEDAL.

CERTIFICATES of the fowing or fetting agreeably to the above conditions, that there are not fewer than one hundred

Ash plants on each acre, in a thriving and healthy condition, two years at least after the sowing or setting, with a general account of the methods used in making the plantation, to be delivered to the Society on or before the last Tuesday in December, 1793.

60, 61. The fame premiums are extended one year further.

CERTIFICATES to be delivered on or before the l'ast Tuesday in December, 1794.

62. MIXED TIMBER-TREES. To the person who shall have inclosed, planted, or sown the greatest number of acres, not less than ten, with the best forts of Forest trees, for timber, between the first of October, 1786, and the first of May, 1788; the Gold Medal.

An Account of the methods used in making the plantations, and of the nature of the soil, together with proper Certificates that the trees were in a thriving and healthy state two years at least after making

making the plantation, to be delivered to the Society on or before the first Tuesday in November, 1790.

63. The fame premium is extended one year further.

The ACCOUNTS and CERTIFICATES to be delivered to the Society on or before the first Tuesday in November, 1791.

64. The fame premium is extended one year further.

The Accounts and Certificates to be delivered to the Society on or before the first Tuesday in November, 1792.

65. The fame premium is extended one year further.

The Accounts and Certificates to be delivered to the Society on or before the first Tuesday in November, 1793.

66. MULBERRY CUTTINGS, OR TREES. For having planted the greatest number of White or Black Mulberry Cuttings

tings or Trees, not fewer than three hundred, in the year 1788, for the purpose of feeding Silkworms; the GOLD MEDAL, or TWENTY POUNDS.

67. For the second greatest quantity, not sewer than one hundred and sifty, the SILVER MEDAL, or TEN POUNDS.

CERTIFICATES of such planting, with the manner of culture, and that the trees were growing in the month of July, 1790, to be produced to the Society on or before the first Tuesday in November, 1790.

68, 69. The same premiums are extended one year further.

CERTIFICATES to be produced on or before the first Tuesday in November, 1791.

70, 71. The fame premiums are extended one year further.

CERTIFICATES to be produced on or before the first Tuesday in November, 1792.

- 72. MULBERRY TREES IN HEDGE ROWS. To the person who shall plant, in the year 1789, the greatest number, not sewer than one hundred layers, of the Black or White Mulberry, in Hedge Rows, at a distance not less than twelve seet from each other, Ten Pounds.
- 73. For the next greatest number, not less than fifty, FIVE POUNDS.

CERTIFICATES of the number of plants, and that the trees were then in a growing state, to be produced to the Society on or before the first Tuesday in October, 1790.

\*\* The Candidates for planting all kinds of Trees are to certify, that the respective Plantations are properly fenced and secured, and particularly to state the Condition the Plants were in at the time of signing such Certificates.

Any information which the Candidates for the foregoing Premiums may choose to communicate, relative to the methods made use of in

in forming the Plantation, or promoting the growth of the several Trees, or any other observations that may have occurred on the subject, will be thankfully received.

74. TREES FOR USE WHEN EX-POSED TO THE WEATHER. To the person who shall send the most satisfactory account, verified by experiments, to determine which of the following trees is of the greatest utility for timber or poles, for use, when exposed to the weather; viz.

Larch, Black Poplar,
Ash, Spanish Chesnut,
Willow, Alder,
Beech, Silver Fir;
Lombardy Poplar,
the Gold Medal.

The Accounts to be produced on or before the second Tuesday in December, 1790.

75. The same premium is extended one year further.

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The Accounts to be produced on or before the second Tuesday in December, 1791.

76. PLANTING BOGGY OR MO-RASSY SOILS. For an account of the best set of experiments sent by the planter, or his representative, to ascertain the comparative advantages of planting boggy or morassy soils with White Poplar, Black Poplar, Lombardy Poplar, and Willow; the Gold Medal, or Twenty Guineas.

It is required than not less than half an acre be planted with each, and the plants to be not more than four feet asunder.

It is also required that the plantation stand sourteen years, at the end of which to be all cut down and measured, or accurately measured standing; the Certificates of the measure and value, and that the whole is properly senced and secured, to be produced on or before the first Tuesday in January, 1792.

N. B. Any information relating to the state of the plantation, if sent to the So-

ciety between the time of planting, and claiming the premium, will be thankfully received.

77. The same premium is extended one year further.

CERTIFICATES to be produced on or before the first Tuesday in January, 1793.

78. The fame premium is extended one year further.

CERTIFICATES to be produced on or before the first Tuesday in January, 1794.

79. The same premium is extended to the year 1796.

CERTIFICATES to be produced on or before the first Tuesday in January, 1797.

80. The fame premium is extended one year further.

CERTIFICATES to be produced on or before the first Tuesday in January, 1798.

81. COMPARATIVE CULTURE OF WHEAT. For the best set of experiments

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periments made on not less than eight acres, four of which to be sown broadcast and sour drilled, to ascertain whether it is most advantageous to cultivate Wheat by sowing it in the common broad-cast way, or by drilling it in equidistant rows, hoeing the intervals; the Gold Medal, or the Silver Medal and Twenty Guineas.

It is required that an account of the nature and condition of the land on which the experiments are made, together with an account of the produce of the Corn, be produced to the Society on or before the first Tuesday in February, 1791.

82. The same premium is extended one year further.

The Accounts to be produced to the Society on or before the first Tuesday in February, 1792.

83. COMPARATIVE CULTURE
OF WHEAT. For the best set of experiments made on not less than eight
T 2 acres

acres of land, four of which to be fown broad-cast, and four dibbled, to ascertain whether it is most advantageous to cultivate Wheat by sowing it in the common broad-cast way, or by dibbling it in equidistant rows, hoeing the intervals; the Gold Medal, or the Silver Medal and Thirty Guineas.

It is required that an account of the nature and condition of the land on which the experiments are made, together with an account of the produce of the Corn, be produced to the Society on or before the first Tuesday in February, 1791.

84. The fame premium is extended one year further.

The ACCOUNTS to be produced to the Society on or before the first Tuesday in February, 1792.

85. BEANS AND WHEAT. To the person who shall have planted or drilled, between the first of September, 1788, and the first of March, 1789, the greatest quantity

quantity of land, not less than ten acres, with Beans, and shall sow the same land with Wheat in the same year, 1789; TWENTY GUINEAS.

It is required that an account of the fort and quantity of Beans, the time of planting or drilling, and of reaping or mowing them, the produce per acre threshed, the application of the straw, the expence of planting or drilling, hand or horse-hoeing, the distance of the rows, and the quality of the soil, together with Certificates of the number of acres, and that the land was actually sown with Wheat in the year 1789, be produced on or before the first Tuesday in November, 1790.

N. B. The Society have been informed that Beans may be drilled or planted so early as the month of December, from whence may be derived the advantage of an early harvest; in which case the straw will be far more valuable than that from a later planting or drilling.

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86. The same premium is extended one year further.

The Accounts to be produced on or before the first Tuesday in November, 1791.

87. DRILL HUSBANDRY. To the person who, in the year 1790, shall have cultivated the greatest quantity of land, not less than four hundred acres, under the Drill system, the wheat sown in the autumn of the year 1789 included; the Gold Medal.

An Account of the quality of the foil, of the various crops, and of the times of drilling and hoeing, with Certificates of the quantity of land, and the general appearance of the crop, to be delivered on before the third Tuesday in February, 1791.

88. The fame premium is extended one year further.

The Accounts and Certificates to be delivered on or before the third Tuesday in February, 1792.

89. TURNEPS. For the best account of experiments made on at least six acres of land, to determine the comparative advantage of the drill or broad-cast method in the cultivation of Turneps; the Gold Medal, or the Silver Medal and Ten Guineas.

The ACCOUNTS to be delivered in, on or before the third Tuesday in April, 1791.

90. The same premium is extended one year further.

The Accounts to be delivered on or before the third Tuesday in April, 1792.

91. GREEN VEGETABLE FOOD. For the best account, confirmed by experiments, of the Vegetable Food (Cabbages and Turneps excepted), growing in the months of March and April, that will most increase the milk in Mares, Cows, and Ewes, at that season; provided such food can be cultivated at an expence that will admit of its being applied to the above purposes; the Gold Medal, or the Silver Medal and Ten Guineas.

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CERTIFICATES to be produced on or before the fecond Tuesday in November, 1790.

92. The same premium is extended one year further.

CERTIFICATES to be produced on or before the second Tuesday in November, 1791.

93. COMPARATIVE CULTURE OF THE TURNEP-ROOTED CAB-BAGE. To the person who shall produce to the Society the best account of the most satisfactory experiments, made on at least four acres of land, to ascertain the comparative advantages of the culture of the Turnep-rooted Cabbage, by sowing it broad-cast, and hoeing out the plants, as is practised with the common Turnep, or by sowing the seed in nurseries, and transplanting the plants at proper distances, hoeing the intervals; the Silver Medal and Ten Pounds.

It is required that at least two acres be cultivated in each manner, and CERTIFICATES of the culture, with an account of the foil, expence, and produce of each separately, be produced on or before the first Tuesday in October, 1791.

94. The fame premium is extended one year further.

CERTIFICATES and Accounts to be produced on or before the first Tuesday in October, 1792.

95. The fame premium is extended one year further.

CERTIFICATES and ACCOUNTS to be produced on or before the first Tuesday in October, 1793.

96. TURNEP-ROOTED CABBAGE. For having raifed and duly cultivated Turnep-rooted Cabbage, in the year 1789, for the feeding Cattle or Sheep, on the greatest number of acres, not less than ten, and giving

giving an account of the foil, culture, time and manner of feeding off, produce, and the effects on Cattle or Sheep fed with it; the Gold Medal.

97. For the next greatest number of acres, not less than five, the SILVER ME-DAL and TEN GUINEAS.

CERTIFICATES of the quantity of land, with the accounts, to be produced on or before the last Tuesday in October, 1790.

98. The same premium is extended one year further.

CERTIFICATES to be produced on or before the last Tuesday in October, 1791.

99. The same premium is extended one year further.

CERTIFICATES to be produced on or before the last Tuesday in October, 1792.

POTATOE. To the person who shall discover

discover to the Society the nature and cause of the disease in the Potatoe-plant called The Curled Potatoe, and point out an effectual cure, the whole verified by repeated and satisfactory experiments, the Gold Medal, or Thirty Pounds.

The Accounts to be produced to the Society on or before the third Tuesday in November, 1790.

101. The fame premium is extended one year further.

The Accounts to be produced on or before the third Tuesday in November, 1791.

102. POTATOES FOR FEEDING CATTLE AND SHEEP. To the person who, in the year 1789, shall have cultivated the greatest quantity of land, not less than four acres, with Potatoes, for the sole purpose of feeding Cattle and Sheep, the Gold Medal, or Twenty Guineas.

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CERTIFICATES, with fatisfactory Accounts of the expence and manner of cultivating the Potatoes, and the application of them to the above purposes, and the success that has attended the use of them, to be delivered to the Society on before the second Tuesday in November, 1790.

103. The same premium is extended one year further.

CERTIFICATES to be delivered on or before the fecond Tuesday in November, 1791.

104. The same premium is extended one year further.

CERTIFICATES to be delivered on or before the second Tuesday in November, 1792.

N. B. Should any Gentleman have already cultivated Potatoes for the purposes mentioned in the above advertisement, any information from him on the subject will be thankfully received by the Society.

HERBAGE FOR FEEDING SHEEP AND BLACK CATTLE. For the most satisfactory experiments made between Michaelmas, 1789, and the first of May, 1790, in order to ascertain which of the following plants can be cultivated and housed, or otherwise secured for winter fodder, to the greatest advantage, viz.

Turnep-rooted Cabbage, Carrots,
Turnep Cabbage, Parsneps,
Turneps, Potatoes;
the Gold Medal.

The Accounts to be produced on or before the first Tuesday in November, 1790.

It is required that the above roots be taken off the land by the last day of October, 1789; that a crop of Wheat may be sown in the same ground, and the particulars of the sowing and planting, taking up, produce, preserving, and application to the feeding Sheep and Black Cattle, be specified. The comparative experiments

experiments must be made between two or more of any of the above-mentioned plants, and not less than two acres be cultivated with each particular kind of plant.

- N. B. Great advantage will arise to the Farmer occupying land in the neighbour-hood of extensive commons, from the conconveniency of keeping large flocks of Sheep, and herds of Cattle, if the difficulty of supporting them through the winter was obviated by a due knowledge of this practice.
- 106. The same premium is extended one year further.

CERTIFICATES to be produced on or before the first Tuesday in November, 1791.

107. STALL-FEEDING HORSES WITH GREEN VEGETABLES. To the person who shall keep the greatest number of Horses, not sewer than four, in the Stall or Stable, during the greatest number

number of months in the year, on Carrots, Potatoes, Lucern, Saintfoin, Clover, Vetches, or any other green vegetable food raifed on land in his own possession; the Silver Medal and Ten Guineas.

It is required that the number of horses so fed, the quantity of land employed in raising the green vegetable food, the quantity of hay and corn (if any) consumed, the state and condition of the horses, an account of the work done by them, and of the quantity of dung obtained, as near as can be ascertained, be fully and particularly specified.

The ACCOUNTS and CERTIFICATES to be produced to the Society on or before the fecond Tuesday in February, 1791.

107\*. The same premium is extended one year further. The Accounts and Certificates to be produced to the Society on or before the second Tuesday in February, 1792.

108. STOCKS OF BEES. To the person who shall have in his possession, being

being his own property, the greatest number of Stocks of Bees, not fewer than thirty, and who shall in the most judicious manner provide for them plenty of such vegetables as afford them honey and wax; the Gold Medal or Twenty Pounds.

109. For the next greatest number, not fewer than twenty stocks, the SILVER MEDAL, or TEN POUNDS.

Proper CERTIFICATES of the number of Stocks, and that they have been in the possession of the Claimant during the preceding summer, together with a particular account of the vegetables provided for their sufference, and the manner in which they have been managed, to be produced to the Society on or before the first Tuesday in November, 1790.

110, 111. The fame premiums are extended one year further.

CERTIFICATES to be delivered on or before the last Tuesday in November, 1791.

RHUBARB. For having raised, before the end of the year 1790, the greatest number of plants, not less than three hundred, of Rheum Palmatum, or true Rhubarb, the Gold Medal.

113. For the next greatest number, not less than two hundred plants, the SILVER MEDAL.

CERTIFICATES of the number of plants, that they stand at least four seet asunder, that they have been in a thriving state during the preceding summer, with an account of the soil, culture, and aspect, to be produced on or before the second Tuesday in February, 1791.

114, 115. The same premiums are extended one year further.

CERTIFICATES to be produced on or before the fecond Tuesday in February, 1792.

- quantity of Rhubarb of British growth, not less than twenty pounds weight, equal to such as is commonly sold in the shops under the name of Turkey or Russia Rhubarb; sive pounds of which to be produced as a sample, with Certificates that the remainder is of equal goodness, and a particular Account of the manner of culture and cure, on or before the first Tuesday in November, 1790; the Gold Medal.
- 117. For the next greatest quantity, not less than ten pounds weight, the SILVER MEDAL.
- 118, 119. The fame premiums are extended one year further.

The Samples and Certificates to be produced on or before the first Tuesday in November, 1791.

120. ASCERTAINING THE COM-PONENT PARTS OF ARABLE LAND. To the person who shall produce duce to the Society the most satisfactory set of experiments, to ascertain the due proportion of the several component parts of Arable Land, in one or more counties in Great Britain, by an accurate analysis of it; and who, having made a like analysis of some poor land, shall, by comparing the component parts of each, and thereby ascertaining the deficiences in the poor soil, improve a quantity of it not less than two acres, by the addition of such parts as the former experiments shall have discovered to be wanting therein, and therefore probably the cause of its sterility; the Gold Medal, or Fifty Guineas.

It is required that the manurings, ploughings, and crops of the improved land, be the fame after the improvement as before; and that a minute account of the produce in each state, of the weather, and of the various influencing circumstances, together with the method made use of in analysing the soils, be produced, with proper Certificates, and the chemical results of the analysis, which

are to remain the property of the Society, on or before the last Tuesday in November, 1790.

It is expected that a quantity, not less than fix pounds, of the rich, of the poor, and of the improved soils, be produced with the Certificates.

N. B. Among the methods or processes made use of by Chemists, and called DRY or MOIST, the latter only appears adapted to the ascertaining the respective proportions of the component parts of Arable earth.—Dr. Shaw, in his Chemical Lectures; Dr. Home, in his Principles of Agriculture; Dr. George Fordyce, in his Elements of Agriculture; and Sir Torben Bergmen, in his "Dissertation sur les Terres Géoponiques;" have treated of these subjects.

121. The same premium is extended one year further.

The ACCOUNTS to be produced on or before the last Tuesday in November, 1791.

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122. The same premium is extended one year further.

The Accounts to be produced on or before the last Tuesday in November, 1792.

123. The same premium is extended one year further.

The Accounts to be produced on or before the last Tuesday in November, 1793.

124. The fame premium is extended one year further.

The Accounts to be produced on or before the last Tuesday in November, 1794.

125. IMPROVING LAND LYING WASTE. For the best Account of a method of improving any of the following soils, being land lying waste or uncultivated, viz. Clay, Gravel, Sand, Chalk, Moor or Peat-earth, and Bog; verified by experiments on not less than ten acres of land, to

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be produced on or before the fecond Tuefday in December, 1790; the GOLD ME-DAL, or the SILVER MEDAL and TWENTY GUINEAS, for each.

126. For the next in merit, the SILVER MEDAL.

The foil, manner of improvement, expence, and product, are required to be fully explained.

127, 128. The same premiums are extended one year further.

The ACCOUNTS to be produced on or before the second Tuesday in December, 1791.

129, 130. The same premiums are extended one year further.

The Accounts to be produced on or before the second Tuesday in December, 1792.

131. MANURES. To the person who shall give the most satisfactory account, verified

verified by accurate experiments, on what foil the application of Marl, Chalk, Lime, or Clay, severally, as manures, be most beneficial; the Gold Medal, or the Silver Medal and Twenty Guineas.

It is required that each experiment be made on one acre, and that they be continued four years, the same kind of grain being sown the same year on the several spots.

It is also required, that, if different manures are compared, the experiments be made on similar soils, lying near each other.

An ACCOUNT of the nature of the foil, manure, and the quantity laid on, with all expences, and crops, to be delivered, with specimens of the soil and manure, on or before the first Tuesday in January, 1791.

132. The same premium is extended one one year further.

The ACCOUNTS and Specimens to be produced on or before the first Tuesday in January, 1792.

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133. MANURES. For the most fatisfactory set of experiments, to ascertain the comparative advantages of the following Manures, used as Top-dressings, on Grass or Corn Land, viz. Soot, Coal-Ashes, Wood-Ashes, Lime, Night-soil; the Gold Medal, or the Silver Medal and Twenty Guineas.

It is required that not less than half an acre of land be appropriated to each Manure, the soils similar, and lying near each other; and if the Manure be used on Corn Land, then it is required that the same kind of Grain be sown the same year on each spot; the experiments to be continued not less than two years.

An ACCOUNT of the nature of the soil, quantity and expence of the Manure, and Crops, with Certificates, to be produced on or before the first Tuesday in December, 1790.

134. The same premium is extended one year further.

The

The Account and CERTIFICATES to be produced on or before the first Tuesday in December, 1791.

135. The fame premium is extended one year further,

The ACCOUNT and CERTIFICATES to be produced on or before the first Tuesday in December, 1792.

136. IMPROVING WASTE MOORS. For the improvement of the greatest number of acres of Waste Moor-Land, not less than one hundred, the Gold Medal.

It is required that the land before improvement be absolutely uncultivated, and in a great measure useless; that in its improved state it be inclosed, cultivated, and divided into sields, sufficient for the use and occupation of a tenant.

CERTIFICATES of the number of acres, of the quality of the Moor so improved, of the mode and expence of the improvement, the state it is in as to the proportion of grass

to arable, and the average value thereof, to be produced on or before the first Tuesday in February, 1791.

137. The fame premium is extended one year further.

CERTIFICATES to be produced on or before the first Tuesday in February, 1792.

138. The same premium is extended one year further.

CERTIFICATES to be produced on or before the first Tuesday in February, 1793.

139. The same premium is extended one year further.

CERTIFICATES to be produced on or before the first Tuesday in February, 1794.

140. GAINING LAND FROM THE SEA. To the person who shall produce to the Society an account of the best method, verified by actual experiment, of gaining Land from the Sea, not less than twenty acres, on the coast of England or Wales, the GOLD MEDAL.

CERTI-

CERTIFICATES of the quantity of Land, and that the experiments were begun after the first of January, 1785, to be produced to the Society on or before the first Tuesday in October, 1790.

- N. B. The Society have been credibly informed, that Land has been gained on the coast of Holland, by fixing rows of whisps of straw upright in the sand, at about a foot distant from each other, or by fixing stakes at proper distances from each other, and wattling straw-bands between them.
- 141. The same premium is extended one year further.

CERTIFICATES to be produced on or before the first Tuesday in October, 1791.

142. The same premium is extended one year further.

CERTIFICATES to be produced on or before the first Tuesday in October, 1792.

143. The fame premium is extended one year further.

CERTI-

CERTIFICATES to be produced on or before the first Tuesday in October, 1793.

**MACHINE** TO ANSWER THE PURPOSE OF REAPING OR MOWING CORN. For inventing a Machine to answer the purpose of mowing or reaping Wheat, Rye, Barley, Oats, or Beans, by which it may be done more expeditiously and cheaper than by any method now practifed, provided it does not shed the Corn or Pulse more than the methods in common practice, and that it lays the straw in such a manner as that it may be eafily gathered up for binding; TEN GUI-NEAS.

The MACHINE, with CERTIFICATES that at least three acres have been cut by it, to be produced to the Society on or before the second Tuesday in December, 1790.

Simplicity and cheapness in the confiruction will be considered as principal parts of its merit.

145. The same premium is extended one year further.

The

The MACHINE and CERTIFICATES to be produced on or before the second Tuesday in December, 1791.

146. IMPROVED HOE. To the person who shall produce to the Society the most improved or best constructed Horse or Hand Hoe, superior to any hitherto in use, for the purpose of clearing from Weeds, and loosening the Soil in, the intermediate spaces of all Crops of Corn, sown in equidistant rows, and which shall earth up the young Plants at the same time; the Gold Medal, or Twenty Guineas.

A HOE, with CERTIFICATES of its having been successfully used, to be produced to the Society on or before the first Tuesday in December, 1790:

146\*. The same premium is extended one year further.

The Hoe, with CERTIFICATES, to be produced on or before the first Tuesday in December, 1791.

147. DESTROYING THE GRUB OF THE COCKCHAFER. To the person who shall discover to the Society an effectual method, verified by repeated and satisfactory trials, of destroying the Grub of the Cockchafer, or of preventing or checking the destructive effects which always attend Corn, Peas, Beans, and Turneps, when attacked by those insects; the SILVER MEDAL and TEN GUINEAS.

The Accounts to be produced on or before the first Tuesday in January, 1791.

148. The same premium is extended one year further.

The Accounts to be produced on or before the first Tuesday in January, 1792.

149. DESTROYING THE WIRE-WORM. To the person who shall discover to the Society an effectual method, verified by repeated and satisfactory trials, of destroying the insect called the Wire-Worm, or of preventing or checking the destructive effects which always attend Corn, Beans,

Peas,

Peas, or Pulse, when attacked by those insects; the SILVER MEDAL and TEN GUINEAS.

The Accounts to be produced to the Society on or before the first Tuesday in January, 1791.

Premiums for Discoveries and Improvements in Chemistry, Dying, and Mineralogy.

150. KELP. For the greatest quantity, not less than four tons, of Kelp, containing a much larger proportion of Alkaline Salt than any Kelp now made for sale, TWENTY POUNDS.

A Specimen of one hundred weight to be produced on or before the first Tuesday in January, 1791; together with CERTIFICATES that the whole quantity is equal to the specimen, and made in Great Britain or Ireland of Sea-weed.

151. BARILLA. For the greatest quantity of merchantable Barilla, not less than half a ton, made from Spanish Kali raised in Great Britain, the GOLD MEDAL.

A Sample of not less than twenty-eight pounds, with a CERTIFICATE that half a ton has been made, to be produced on or before the first Tuesday in January, 1791.

t52. PRESERVING SEEDS OF VEGETABLES. For the best method of preserving the Seeds of Plants in a state sit for vegetation a longer time than has hitherto been practised, such method being superior to any known to the public, and verified by sufficient trial; to be communicated to the Society on or before the first Tuesday in December, 1790; the Gold Medal.

153. DESTROYING SMOKE. For the best account, ascertained by proper experiments, of a method of destroying or burning the smoke of fires belonging to Steam Engines, Furnaces employed in calcining or smelting Metals, or other large works, in order to prevent annoyance to the neighbourhood; to be produced on or before the first Tuesday in January, 1791; the Gold Medal.

154. The same premium is extended one year further.

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#### 306 CHEMISTRY.

The Accounts to be produced on or before the first Tuesday in January, 1792.

155. CANDLES FROM RESIN. To the person who shall discover to the Society the best method of so reducing the inflammable quality of Resin, as to adapt it to the purposes of making Candles sit for common use, at a price much inferior to that of Candles made of Tallow only; the GOLD MEDAL, or THIRTY GUINEAS.

Six pounds at least of the Candles so prepared, with an ACCOUNT of the process, to be delivered to the Society on or before the first Tuesday in December, 1790.

156. REFINING FISH-OIL. For disclosing to the Society an effectual method of purifying Fish-Oil from the glutinous matter that encrusts the wicks of lamps, and extinguishes the light, though fully supplied with oil, the Gold Medal, or Fifty Guineas.

It is required that the whole of the process be fully and fairly disclosed, in order that that satisfactory experiments may be made by the Society to determine the validity of the claim; and that CERTIFICATES that not less than twenty gallons have been purified according to the process delivered in, must, together with two gallons of the Oil in its unpurified state, and two gallons so refined, be produced to the Society on or before the second Tuesday in February, 1791.

The same premium is extended one year further.

CERTIFICATES and Samples to be produced on or before the second Tuesday in February, 1792.

157. SUBSTITUTE FOR, OR PRE-PARATION OF, YEAST. For discovering to the Society an effectual Substitute for Yeast, or preparation of Yeast, which, after being kept two months, shall be sit for fermenting liquors, and raising bread; the Gold Medal, or Twenty Pounds.

Specimens of the Substitute, or of the preparation of Yeast, sufficient for trials,

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together with a paper sealed up, and containing an account of the composition of the Substitute, or method of preparing the Yeast, to be produced on or before the last Tuesday in November, 1790.

158. INCREASING STEAM. To the person who shall discover to the Society a method, verified by actual experiments, of increasing the quantity or the force of Steam, in Steam Engines, with less suel than is usually employed, provided that in general the whole amount of the expences in using Steam Engines may be considerably lessened; the Gold Medal, or Thirty Guineas.

To be communicated to the Society on or before the first Tuesday in January, 1791.

N. B. As it is well known there are methods of preventing the ebullition of liquids by the addition of particular matters in the boiling, it is submitted to the confideration of 'the ingenious, whether, by the

the addition of some matters, or by some mechanical operations, the boiling and evaporation may not be increased.

159. The same premium is extended one year further.

To be communicated to the Society on or before the first Tuesday in January, 1792.

160. PREVENTING THE DRY-ROT IN TIMBER. To the person who shall discover to the Society the cause of the Dry-Rot in Timber, and disclose a certain method of prevention superior to any hitherto known, the Gold Medal, or the Silver Medal and Ten Guineas.

The Accounts of the cause, and method of prevention, confirmed by repeated experiments, to be produced to the Society on or before the second Tuesday in December, 1790.

161. The same premium is extended one year further.

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### 310 CHEMISTRY.

The Accounts to be produced on or before the second Tuesday in December, 1791.

162. FINE BAR-IRON. To the perfon in England or Wales, who shall make, in the year 1789, the greatest quantity of Bar-Iron, not less than ten tons, with Coak, from Coak Pigs, equal in quality to the best Iron imported from Sweden or Russia, and as sit for converting into Steel; the Gold Medal.

SAMPLES, not less than one hundred weight, with CERTIFICATES that the whole quantity is of equal quality, to be produced to the Society on or before the first Tuesday in January, 1791.

163. The fame premium is extended one year further.

SAMPLES and CERTIFICATES to be delivered on or before the first Tuesday in January, 1792.

164. METHOD OF PREPARING WHITE LEAD WHICH SHALL NOT BE PREJUDICIAL. To the person who shall discover to the Society a method of preparing White Lead, in a manner that shall not be prejudicial to the health of the workmen employed either in making or using it, and will answer all the purposes for which White Lead is at present used, FIFTY Pounds.

A quantity of the White Lead so prepared, with an account of the process made use of, and CERTIFICATES that not less than one ton has been manufactured in the same manner, to be produced to the Society on or before the fecond Tuesday in November, 1790.

165. The same premium is extended one year further.

CERTIFICATES and ACCOUNTS to be produced to the Society on or before the fecond Tuesday in November, 1791.

166.

of PAINT. To the person who shall produce to the Society the best Substitute, superior to any hitherto known, for the Basis of Paint, equally proper for the purpose as the White Lead now employed; such Substitute not to be of a noxious quality, and which may be afforded at a price not materially higher than that of White Lead; Thirty Pounds.

A quantity of the Substitute, not less than fifty pounds weight, with an ACCOUNT of the process used in preparing it, and CERTIFICATES that at least five hundred weight has been manufactured, to be produced to the Society on or before the second Tuesday in November, 1790.

167. The fame premium is extended one year further.

CERTIFICATES and ACCOUNTS to be produced on or before the fecond Tuesday in November, 1791.

168. REFINING BLOCK TIN. To the person who shall discover to the Society the best method of purifying or refining Block Tin, in such manner as to render it sit for the siner purposes to which Grain Tin is now solely applied, the Gold Medal, or Fifty Pounds.

CERTIFICATES that not less than three tons have been refined or purified, with a full detail of the process, and a quantity, not less than one hundred weight, of the Tin so refined, to be produced to the Society on or before the first Tuesday in November, 1790.

168\*. The fame premium is extended one year further.

CERTIFICATES to be produced on or before the first Tuesday in November, 1791.

Premiums

# 314 POLITE ARTS.

Premiums for promoting the Polite Arts.

169. HONORARY PREMIUMS FOR DRAWINGS. For the best Drawing of any kind, made with Crayons, Chalk, Black Lead, Pen, Indian Ink, or Bister, by young Gentlemen under the age of twenty-one, sons or grandsons of Peers, or Peeresses in their own right, of Great Britain or Ireland; to be produced on or before the first Tuesday in March, 1791; the Honorary Medal of the Society IN Gold.

170. The same IN SILVER, for the second in merit.

171, 172. The fame premiums will be given, on the like conditions, to young Ladies, daughters or grand-daughters of Peers, or Peeresses in their own right, of Great Britain or Ireland.

# POTITE ARTS. 315

- 173. HONORARY PREMIUMS FOR DRAWINGS. For the best Drawing of any kind, made with Crayons, Chalk, Black Lead, Pen, Indian Ink, or Bister, by young Gentlemen under the age of twentyone; to be produced on or before the first Tuesday in March, 1791; the Gold Medal.
- 174. For the next in merit, the SILVER MEDAL.
- 175, 176. The fame premiums will be given for Drawings by young Ladies.
- N. B. Persons professing any branch of the Polite Arts, or any business dependent on the Arts of Design, or the sons or daughters of such persons, will not be admitted Candidates in these Classes.

The following Premiums are offered in conformity to the Will of the late John Stock, of Hampstead, Esq.

177. SCULPTURE. For the best Model of the Bust of his Royal Highness the Prince of Wales, as large as the life, to be produced on or before the third Tuesday in February, 1791, a SILVER MEDALLION, with the following engraved inscription: The Premium given by the Society for the Encouragement of Arts, Manufactures, and Commerce, in conformity to the Will of John Stock, of Hampstead, Esq.

A Cast from the Model to which the Premium is adjudged, is to remain the property of the Society.

178. PORTRAIT. For the best Copy, in Oil Colours, of a Portrait of the late John Stock, of Hampstead, Esq. to be produced on or before the third Tuesday in February,

February, 1791, a SILVER MEDALLION, with the following engraved inscription: The Premium given by the Society for the Encouragement of Arts, Manufactures, and Commerce, in conformity to the Will of John Stock, of Hampstead, Esq.

179. DRAWINGS OF OUTLINES. For the best Outline after an original group or cast, in plaster, of Human Figures, by persons of either sex under the age of sixteen, the principal figure not less than twelve inches; to be produced on or before the third Tuesday in February, 1791; the greater SILVER PALLET.

180. For the next in merit, the leffer SILVER PALLET.

N. B. These Drawings are to be made on Paper, with Chalk, Black Lead, Indian Ink, or Bister; and the originals either to be produced to the Society, or to be referred to for their examination.

#### 318 POLITE ARTS.

181. DRAWINGS OF MACHINES. For the best Perspective Drawing, by perfons of either sex under the age of twenty-one years, of the Model of a Crane, by Mr. Bunce, in the Society's Repository, showing particularly the method of stopping the Wheel by the centrifugal force of the Ball, the greater SILVER PALLET; to be produced on or before the third Tuesday in February, 1791.

N. B. Such Candidates as propose to make Drawings for this Premium, will be admitted by the Register any day (Sundays and Wednesdays excepted) between the hours of ten and two.

The Drawing to which the Premium is adjudged, is to remain the property of the Society.

182. DRAWINGS OF LAND-SCAPES. For the best Drawing of a Landscape after nature, by persons of either sex under twenty-one years of age, to be produced produced on or before the third Tuesday in February, 1791, the greater SILVER PALLET.

183. For the next in merit, the leffer SILVER PALLET.

Each Candidate must mention, on the front of the Drawing, from whence the View was taken; and the Drawings must be made with Chalk, Pen, Indian Ink, or Bister.

- 184. HISTORICAL DRAWINGS. For the best Historical Drawing, being an original composition, of five or more Human Figures; the height of the principal figure not less than eight inches; to be made with Crayons, Chalk, Black Lead, Pen, Indian Ink, or Bister, and to be produced on or before the third Tuesday in February, 1791; the GOLD PALLET.
- 185. For the next in merit, the greater. SILVER PALLET.

# 320 POLITE ARTS.

186. ENGRAVING IN THE LINE MANNER. To the Engraver who shall produce to the Society the best engraved Plate, executed by himself, of the dimensions of not less than twenty inches by sixteen inches, containing not fewer than three Human Figures, the principal figure not less than twelve inches high; to be engraved in the LINE MANNER, from any old or modern Picture; the Gold Pallet, and Twenty-five Guineas.

The regular progress of the work, from the first Proof of the etching, to the finished impression of the Plate, to be produced to the Society on or before the first Tuesday in February, 1791.

187. The fame premium is extended one year further.

The IMPRESSIONS to be delivered on or before the first Tuesday in February, 1792.

188. SURVEYS OF COUNTIES.

To the person who, in the year 1791, shall complete

complete and publish an ascurate Survey of any one County in England or Wales, on a scale of not less than one inch to a mile, for which rewards have not already been given by the Society, the Gold Medal, or Fifty Pounds.

CERTIFICATES of the accuracy of the Survey, and that it was begun after the first of June, 1787, together with the Map, to be produced on or before the last Tuesday in January, 1792.

The Map to which the premium shall be adjudged, to remain the property of the Society.

N. B. The Society are already in poffession of Surveys of the following Counties, viz. Devonshire, Derbyshire, Somersetshire, Northumberland, Suffolk, Leicestershire, Cumberland, and Lancashire.

189. The same premium is extended one year further.

The Survey to be begun after the first of June, 1788, and the Map to be pro-

#### 322 POLITE ARTS.

duced on or before the last Tuesday in January, 1793.

190. The same premium is extended one year further.

The Survey to be begun after the first of June, 1789, and the Map to be produced on or before the last Tuesday in January, 1794.

191. NATURAL HISTORY. To the Author who shall publish, in the year 1790, the Natural History of any County of England or Wales, the GOLD MEDAL, or FIFTY POUNDS.

It is required that the feveral natural productions, whether animal, vegetable, or mineral, peculiar to the county or found therein, be carefully and specifically arranged and described, in order that the Public may be enabled to judge what Arts or Manufactures are most likely to succeed in such County.

The

# POLITE ARTS: 323

The Work to be delivered to the Society on or before the last Tuesday in January, 1791.

192. The same premium is extended one year further.

The Work to be delivered to the Society on or before the last Tuesday in January, 1792.

193. The same premium is extended one year further.

The Work to be delivered on or before the last Tuesday in January, 1793.

### 324 POLITE ARTS.

#### CONDITIONS.

No person who has gained the first Premium in any Class, will be admitted a Candidate in a Class of an inferior age; and no Candidate shall receive more than one Premium in one year; nor will they who for two successive years shall gain the first Premium in one Class, be ever again admitted as Candidates in that Class.

No person shall ever be admitted a Candidate in any Class, in which he has three times obtained the whole of the first Premium.

No Candidate shall send in more than one Performance in any one Class.

All the Claims which are produced each year before the Committee of Polite Arts (to which Premiums or Bounties are adjudged)

judged) are to remain with the Society fix weeks after the determination, unless the Candidates, for particular reasons, do apply to have their performances returned.

No Claim for a Premium in the Polite Arts will be admitted, that has obtained, or has been produced in order to obtain, a Premium, Reward, or Gratification, from any other Society, or any Academy or School.

All Performances that obtain Premiums in the Polite Arts, must be begun after the the publication of such Premiums.

Purposely to encourage real merit, and to prevent any attempts to impose on the Society, by producing Drawings which shall have been made or retouched by any other person than the Candidate, the Society is resolved, upon all occasions, with respect to the successful Candidates in

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Claffes

## 326 POLITE ARTS.

Classes 179 to 185 inclusive, to prove their abilities, by requiring a specimen made under the inspection of the Committee of Polite Arts, in every instance where such proof can be obtained.

Premiums

Premiums for encouraging and improving Manufactures.

194. SILK. For the greatest quantity of merchantable Silk, not less than ten pounds, produced by any one person in England, in the year 1790, the Gold Medal.

SPECIMENS of the Silk, not less than one pound, with CERTIFICATES that the whole is of equal quality, and produced in England, to be delivered to the Society on or before the first Tuesday in January, 1791.

- 195. For the second greatest quantity, not less than five pounds, the SILVER MEDAL.
- 196. MACHINE FOR CARDING SILK. For the best Machine, superior to any now in use, for carding Waste Silk equally well as by hand; to be produced,

  Y 4 together

together with a specimen of the Cardings, on or before the first Tuesday in November, 1790; the GOLD MEDAL, or TWENTY POUNDS.

- 197. WEAVING FISHING-NETS. For the best specimen of Plain Netting, for Fishing-Nets, superior to any hitherto in use, not less than twenty yards long, and six seet deep, woven in a Loom, or other Machine; to be produced to the Society on or before the second Tuesday in January, 1791; FIFTY GUINEAS.
- N. B. It is expected that the Specimen produced be made in such a manner, as to be cut and joined without more loss than usual, that it have such a plain selvage as the common Fishing-Nets, and that the Knot be equally fast with those in Nets in common use, and as easily repaired.
- 198. A strong CLOTH being prepared in SWEDEN from HOP-STALKS, or BINDS, the Society will give the Gold Medal, or Twenty Pounds, as a Pre-

mium

mium for the best and greatest quantity of such Cloth, not less than twenty-sive yards, made in England, and produced to the Society on or before the second Tuesday in December, 1790.

One pound at least of the Thread to be produced with the Claim.

199. The same premium is extended one year further.

The Cloth and Thread to be produced to the Society on or before the fecond Tuefday in December, 1791.

200. The same premium is extended one year further.

The Cloth and Thread to be produced to the Society on or before the fecond Tuefday in December, 1792.

201. PAPER FROM RAW VEGE-TABLE SUBSTANCES. To the perfon in England or Wales who shall make the greatest quantity, not less than fifty reams,

reams, of the best and most useful Paper, from Raw Vegetable Substances, TWENTY GUINEAS.

CERTIFICATES of the making such Paper, and one ream of the Paper, to be produced on or before the first Tuesday in November, 1790.

N. B. The Society are in possession of two volumes, containing a great variety of specimens of Paper made from Raw Vegetables, viz. Thistles, Potatoe-Haum, Poplar, Hop-binds, &c. which volumes may be inspected by any person on application to the Register,

Premiums for Inventions in Mechanicks.

TRANSIT INSTRUMENT. 202. To the person who shall invent and produce to the Society a cheap and portable Transit Instrument, which may easily be converted into a Zenith Sector, capable of being accurately and expeditionfly adjusted for the purposes of finding the Latitudes and Longitudes of places, and superior to any portable Transit Instrument now in use, the GOLD MEDAL, or THIRTY GUINEAS.

To be produced on or before the last Tuesday in January, 1791,

- 203. GUN-HARPOON. For every Whale taken by means of the Gun-Harpoon, to the person who first strikes such fish therewith, THREE GUINEAS.
- N. B. Proper CERTIFICATES of the taking such Whales, in the year 1790, figned by the Master, or by the Mate when 3

the Claim is made by the Master, to be delivered to the Society on or before the last Tuesday in December, 1790.

GUN FOR THROWING HARPOONS. To the person who shall produce to the Society the best improvement in the construction of a Gun for throwing Harpoons, so as to render it more manageable than those at present in use, the SILVER MEDAL, OF TEN GUINEAS.

The Gun to be produced to the Society on or before the first Tuesday in December, 1790.

DRIVING BOLTS INTO 205. To the person who shall invent SHIPS. and produce to the Society a Model, shewing a method of driving Bolts into Ships, particularly those of Copper, without spliting the Head or bending them, with more dispatch, in all directions, and tighter, than by any means hitherto known or in use, TWENTY GUINEAS.

The

The Model to be produced to the Society on or before the first Tuesday in February, 1791.

206. IMPROVEMENT OF THE HAND VENTILATOR. To the perfon who shall produce to the Society on or before the last Tuesday in February, 1791, a Portable Ventilator, to be worked by hand, better adapted and more efficacious for extracting foul air from Gaols, Prisons, and Ships, than any now known, or in use, the Gold Medal, or Twenty Guineas.

207. CRANES FOR WHARFS. To the person who shall invent and produce to the Society a Model of a Crane for Wharfs, on a scale of not less than one inch to a foot; the construction to be such, that the effect of the power may be varied according to the weight to be raised, in a manner different from any now known or in use, yet more simple and effectual; the Gold Medal, or Forty Guineas.

### 334 MECHANICKS.

To be produced on or before the first Tuesday in February, 1791.

208. METAL ROPE OR CHAIN. To the person who shall have invented a Chain or Rope of Copper, or other Metal, superior to any hitherto made, sufficiently flexible to work well, and IN ALL DIRECTIONS, over pullies, and which shall serve every purpose of a good Hempen Rope of at least two inches diameter, FIFTY Pounds.

The Candidate to produce to the Society fatisfactory Certificates that such Metal Rope or Chain has been used to advantage in manufactories, or large works, where Hempen Ropes have been hitherto employed.

The CERTIFICATES, and a Sample of the Metal Chain or Rope, not less than ten yards long, to be produced to the Society on or before the first Tuesday in November, 1790.

Although it is well known that the effect of the wind on Horizontal Sails is greatly inferior inferior to that on those which move in a vertical direction, yet, as there are some circumstances and situations where it would be most convenient to erect an Horizontal Mill, the Society do therefore offer the following Premium.

209. HORIZONTAL WINDMILL. To the person who shall invent and produce to the Society a Model of an Horizontal Windmill, on a scale of not less than one inch to a soot, superior to any now in use, and in the construction of which particular regard is had to the preservation of the Machine in high winds, the Mill still continuing to act; the Gold Medal, or Thirty Guineas.

To be delivered to the Society on or before the first Tuesday in February, 1791.

who shall produce to the Society a better constructed Hand Mill, for general purposes, than any now known or in use, the SILVER MEDAL, or TEN GUINEAS.

### 336 MECHANICKS.

To be delivered to the Society on or before the last Tuesday in December, 1790.

211. MACHINE FOR RAISING COALS, ORE, &c. &c. To the person who shall invent a Machine for raising Coals, Ore, &c. from Mines, which shall produce the effect at a less expence than those already known or in use, the Gold Medal, or Forty Guineas.

A Model of the Machine, made on a scale of not less than one inch to a foot, to be produced to the Society on or before the second Tuesday in February, 1791.

WATER. To the person who shall invent a Machine on a better, cheaper, and more simple construction than any hitherto in use, for raising Water out of Wells, &c. from a depth not less than sifty feet, Thirty Guineas.

CERTIFICATES of the performance of the Machine, and a Model of it, on a scale of not less than one inch to a foot, to be produced to the Society on or before the first Tuesday in February, 1791.

213. MACHINE FOR CLEARING RIVERS. For the best Model of a Machine, superior to any now in use, for clearing Navigable Rivers from Weeds at the least expence, TEN GUINEAS.

To be produced to the Society on or before the first Tuesday in February, 1791.

214. METHOD OF EXTINGUISH-ING FIRES. To the person who shall produce to the Society the most speedy and effectual method of extinguishing Fires in Houses or other Buildings, superior to any hitherto known or in use, the Gold Medal, or Forty Guineas.

To be produced on or before the second Tuesday in February, 1791.

215. IMPROVEMENT OF WHEEL CARRIAGES. To the person who shall discover

# 338 MECHANICKS.

discover to the Society the principles, and point out the construction, upon which Wheel Carriages may be drawn with the least fatigue to the horse or horses employed, the Gold Medal, or Fifty Pounds.

The CLAIMS to be delivered to the Society on or before the fecond Tuesday in December, 1791.

Premiums

Premiums offered for the Advantage of the British Colonies.

216. NUTMEGS. For the greatest quantity of merchantable Nutmegs, not less than ten pounds weight, being the growth of his Majesty's dominions in the West Indies, and equal to those imported from the Islands of the East Indies, the Gold Medal, or One Hundred Pounds.

Satisfactory CERTIFICATES, from the Governor, Lieutenant-governor, President of the Council, or Speaker of the House of Assembly, of the place of growth, with an account of the number of trees, their age, nearly the quantity of fruit on each tree, and the manner of culture, to be produced on or before the first Tuesday in December, 1790.

217. The same premium is extended one year further.

Z 2 CERTI-

### 340 COLONIES AND TRADE.

CERTIFICATES to be produced on or before the fecond Tuesday in December, 1791.

- N. B. Any person desirous of information on the subject of Nutmeg-trees, may obtain it from a Memorial on the Fructisication of the Nutmeg, and the surest method of cultivating it to advantage, by the King's Gardener at the Isle of Bourbon, inserted in Mr. Maty's Review for August 1783.
- 218. CINNAMON. For importing into the port of London, in the year 1790, the greatest quantity, not less than twenty pounds weight, of Cinnamon, being the growth of some of the Islands in the West Indies belonging to the Crown of Great Britain, and equal in goodness to the Cinnamon brought from the East-Indies, the Gold Medal, or Fifty Pounds.

SAMPLES, not less than two pounds weight, with CERTIFICATES that the whole

219. The same premium is extended one year further.

The SAMPLES and CERTIFICATES to be produced on or before the first Tuesday in January, 1792.

220. BREAD-FRUIT TREE. To the person who, in the year 1790, shall convey from the Islands of the South Sea, to any of the Islands in the West Indies subject to the Crown of Great Britain, the greatest number, not sewer than six, of one or both species of the Bread-fruit Tree, in a growing state, the Gold Medal.

Z 3

CERTI-

### 342 COLONIES AND TRADE.

CERTIFICATES, figned by the Governor or Lieutenant-governor of the Island, of the importation of the trees, and of the state they were in at the time of figning such Certificates, to be delivered to the Society on or before the second Tuesday in October, 1791.

221. The fame premium is extended one year further.

CERTIFICATES to be produced on on before the fecond Tuesday in October, 1792.

222. The same premium is extended one year further.

CERTIFICATES to be produced on or before the fecond Tuesday in October, 1793.

223. SENNA. To the person who shall import into the port of London, in the year 1790, the greatest quantity of Senna, not less than two hundred weight, the growth of any of the British Islands in the

### COLONIES AND TRADE, 343

the West Indies, and equal to the ALEX-ANDRIAN SENNA now used for medicinal purposes, the GOLD MEDAL.

CERTIFICATES of the growth and method of culture to be produced to the Society on or before the first Tuesday in February, 1791.

- the person who shall have cultivated in the Bahama Islands, or any other part of his Majesty's dominions in the West Indies, in the year 1789, the greatest quantity of land, not less than five acres, with Spanish-Kali, sit for the purpose of making Barilla, the Gold Medal.
- 225. For the next greatest quantity, not less than three acres, the SILVER MEDAL.

CERTIFICATES, figned by the Governor, Lieutenant-governor, or other chief Magistrate, of the quantity of land so cultivated, and of the state of the Plants at the time of figning such Certificates, to be delivered to the Society on or before the second Tuesday in November, 1790.

Z 4 226.

# 344 COLONIES AND TRADE,

226, 227. The same premiums are extended one year further.

CERTIFICATES to be delivered on orbefore the second Tuesday in November, 1791.

228, 229. The fame premiums are extended one year further.

CERTIFICATES to be produced on or before the second Tuesday in November, 1792.

230. CASHEW GUM. To the perfon who, in the year 1790, shall import into the port of London, from any of the British Islands in the West Indies, the greatest quantity, not less than half a ton, of the Gum of the Cashew-tree, which on trial has been found to answer the purpose of Gum Senegal, in Silk-dying, &c. the Gold Medal, or Thirty Guineas.

A SAMPLE, not less than twenty pounds weight, and CERTIFICATES that the whole quantity is of the same quality, and free from

# COLONIES AND TRADE. 345 from leaves and dirt, to be produced to the Society on or before the second Tuesday in January, 1791.

231. The same premium is extended one year further.

CERTIFICATES and SAMPLES to be produced on or before the second Tuesday in January, 1792.

### Society's Office, Adelphi, May 25, 1790.

### Ordered,

THAT THE SEVERAL CANDIDATES AND CLAIMANTS TO WHOM THE SO-CIETY SHALL ADJUDGE PREMIUMS OR Bounties, DO ATTEND AT THE So-CIETY'S OFFICE IN THE ADELPHI, ON THE LAST TUESDAY IN MAY, 1791, AT TWELVE O'CLOCK AT NOON, TO RECEIVE THE SAME; THAT DAY BE-ING APPOINTED BY THE SOCIETY FOR THE DISTRIBUTION OF THEIR RE-WARDS: AND BEFORE THAT TIME NO PREMIUM OR BOUNTY WILL BE DELIVERED, EXCEPTING WHO ARE OUT OF THE KINGDOM, OR PREVENTED BY UNAVOIDABLE ACCI-DENTS.

IN CASES WHERE PERSONAL ATTEN-DANCE CANNOT BE GIVEN, DEPUTIES MAY BE SUBSTITUTED TO RECEIVE THE REWARDS.

GENERAL

Notwithstanding the Society referve to themselves the power of giving, in all cases, such part only of any Premium as the Performance shall be adjudged to deserve, or of withholding the whole, if there be no merit; yet the Candidates may be assured the Society will always judge liberally of their several Claims.

It is required that the matters for which Premiums are offered, be delivered in without names, or any intimation to whom they belong; that each particular thing be marked in what manner each Claimant thinks fit, such Claimant fending with it a paper sealed up, having on the outside a corresponding mark, and on the inside the Claimant's name and address: and all Candidates are to take notice, that no Claim for a Premium will be attended to, unless the conditions

conditions of the Advertisement are fully complied with.

No Papers shall be opened, but such as shall gain Premiums, unless where it appears to the Society absolutely necessary for the determination of the Claim: all the rest shall be returned unopened, with the Matters to which they belong, if inquired after by their Marks, within two years; after which time, if not demanded, they shall be publicly burnt, unopened, at some meeting of the Society.

All Models of Machines, which obtain Premiums or Bounties, shall be the property of the Society.

All the Premiums of this Society are defigned for that part of Great Britain called England, the dominion of Wales, and the Town of Berwick upon Tweed, unless expressly mentioned to the contrary.

The

The Claims shall be determined as soon as possible after the delivery of the Specimens.

No person shall receive any Premium, Bounty, or Encouragement, from the Society, for any Matter for which he has obtained, or proposes to obtain, a Patent.

A Candidate for a Premium, or a person applying for a Bounty, being detected in any disengenuous method to impose on the Society, shall forseit such Premium or Bounty, and be deemed incapable of obtaining any for the suture.

The Performances which each year obtain Premiums or Bounties, are to remain with the Society until the end of May, except as mentioned in the Conditions annexed to the Premiums offered for promoting the Polite Arts.

No Member of this Society shall be a Candidate for, or entitled to receive, any Premium,

Premium, Bounty, or Reward whatfoever, except the Honorary Medal of the Society.

Where Certificates are required to be produced in claim of Premiums, they should be expressed, as nearly as possible, in the words of the respective advertisements, and should not be from the Candidate (folely), but from some other person or persons who have a positive knowledge of the facts certified.

Where Premiums or Bounties are obtained in consequence of specimens produced, the Society mean to retain such part of those specimens as they may judge necessary, making a reasonable allowance for the same.

No Candidate shall be present at any meetings of the Society or Committees, or admitted at the Society's Rooms, after they have delivered in their Claims, until such Claims are adjudged, unless summoned by the Committee.

N. B. Any information or advice that may forward the defigns of this Society for the public good, will be received thankfully, and duly confidered, if communicated by letter, addressed to the Society, and directed to Mr. More, the Secretary, at the Society's Office, in the Adelphi Buildings, London.

\*\*\* In case any person should be inclined to leave a sum of money to this Society, by will, the following form is offered for that purpose:

Item. I give and bequeath unto A. B. and C. D. the fum of upon condition and to the intent that they, or one of them, do pay the fame to the Collector for the time being, of a Society in London.

London, who now call themselves the Society for the Encouragement of Arts, Manufactures, and Commerce; which said sum of

I will and desire may be paid out of my personal estate, and applied towards the carrying on the laudable designs of the Society.

By order of the Society,

SAMUEL MORE, Secretary.

#### ERRATUM.

N. B As in feveral Copies of the Seventh Volume of these Transactions a material error occurs at page 90, where, after the word turpentine, the words four pounds of bogslard ought to be inserted; it is requested that those persons who may be possessed of that Volume will either correct the error with a pen, or apply to the bookseller of whom it was purchased, for a corrected leaf.

A LIST